

Claims

1. A hydraulic accumulator having an accumulator housing in the form of a tube (1) in which a separating element movable along the longitudinal axis (7) of such tube (1), preferably a separating piston (9), separates adjacent pressure compartments (13, 15) from each other on both sides and in which the tube (1) is sealed at at least one end by a cover-like sealing component (5) having a bearing surface for connection to the respective end edge of the tube (1), **characterized in that** the bearing surface has a surface component in the form of an annular surface (39) projecting axially into the interior of the tube (1) for positive-locking support of the tube wall against radial forces and an annular surface (41) extending in the radial direction for positive-locking support of the tube wall against axial forces.
2. A hydraulic accumulator having an accumulator housing in the form of a tube (1) in which a separating element movable along the longitudinal axis (7) of such tube (1), preferably a separating piston (9), separates adjacent pressure compartments (13, 15) from each other on both sides and in which the tube (1) is sealed at one end by an end component (3) shaped by hot forming from the wall of the tube (1), **characterized in that** a curved dome (4) is formed on the end component (3) an area adjacent to and concentric with the longitudinal axis (7) for formation of an elevation of the end component (3).
3. The hydraulic accumulator as claimed in claim 1, wherein the sealing component is in the form of a plate (5) having a deformation in the form of an annular bead (23) which extends into the interior of the tube (1) and which is provided on the radially exterior flank (35) of its projecting convexity (25) with annular surfaces (39, 41) forming the bearing surface.

4. The hydraulic accumulator as claimed in claim 3, wherein the wall of the tube (1) is designed in the interior in the area adjoining the end edge with a camfer (45) so that the wall thickness of the tube (1) is reduced locally on the end edge, at least in the area which surrounds the top (37) of the annular bead (23).
5. The hydraulic accumulator as claimed in claim 3 or 4, wherein the annular bead (23) is configured by cold molding on the plate (5) forming the sealing component.
6. The hydraulic accumulator as claimed in one of claims 3 to 5, wherein the plate (5) forming the sealing component is connected to the tube (1) by a weld connection (43) configured on the bearing surface.
7. The hydraulic accumulator as claimed in one of claims 3 to 6, wherein the plate (5) has at least in individual areas over the circumference of the tube (1) radially projecting extensions (31) which form at least parts of a fastening flange having fastening openings (33).
8. The hydraulic accumulator as claimed in claim 7, wherein extensions (31) mounted at regular angular distances from each other are provided for the formation of at least two, preferably three, flange components.
9. The hydraulic accumulator as claimed in one of claims 5 to 8, wherein the annular bead (23) of the plate (5) is curved outward by cold extrusion molding from the plane of the plate (5) so that the thickness of the material of the plate (5) is greater in the level areas (27, 29) adjoining the annular bead (23) than in the curved area.

10. The hydraulic accumulator as claimed in claim 9, wherein a connection opening (21) is provided in the center of the plate (5) having the full thickness of the material.
11. The hydraulic accumulator as claimed in claim 9 or 10, wherein the radius of curvature of the curve is greater in the areas of transition to the level areas (27, 29) of the plate (5) than in the area forming the top (37) of the annular bead (23).
12. The hydraulic accumulator as claimed in claim 2, wherein the flanks (6) of the dome (4) projecting from the end component (3) are concave in shape on the exterior.
13. The hydraulic accumulator as claimed in claim 12, wherein the dome (4) has a filling opening (18) concentric with the longitudinal axis (7) of the tube (1).